REMARKS

I. Drawing Objection

The drawings figures were objected to for not showing all the features of the invention.

First, the invention is a method of transmitting traffic information. Illustrations showing an inventive method do not necessarily need to show specific devices that may or may not be used in performing the claimed method. Second, coding would take place in a processor, e.g. the processor of a central station coding the traffic message, not in a "data bank" or database.

Finally, new claims have been drafted which do not make reference to location data banks or a database. The invention can be described and distinguished from the prior art without making reference to a "data bank".

For the foregoing reasons and because of the changes in the claims deleting the "data bank" elements, withdrawal of the objection to the drawing figures under 37 C.F.R. 1.83 (a) is respectfully requested.

II. Additional Specification and Title Changes

Some additional changes have been made in various specification paragraphs to correct translation and grammatical errors and to provide a description that is in accurate idiomatic English. For example, the wording "position of a traffic information" is illogical and has been changed in both the title and the first paragraph of the specification.

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III. Claim and Abstract Changes

Applicants agree that the original claims were drafted with wording that is capable of a broad interpretation that makes distinguishing the claimed invention from the prior art difficult. The original claims 1 to 8 have been canceled.

New method claims 9 to 16 have been filed for a method of transmitting traffic information about a traffic obstruction on a traffic way with digital coded messages. A "traffic way" of course means a highway, street or road. This latter definition is clearly correct from the background section of the application, especially the last paragraph on page 3.

The method of claim 9 is especially simple and adaptable to existing methods of transmitting traffic information by TMC messages coded with ALERT-C protocol with a minimum of new programming steps and software. The method as claimed in new claim 9 includes a) coding a traffic message including the information regarding the position and optionally the extent of the traffic obstruction and b) transmitting the traffic message. Basis for this straightforward statement of the method is found in various places in the specification, e.g. line 3 of page 9 and line 6 of page 10.

The method is distinguished from the art by the way the traffic message is coded to include the information regarding the position and extent of the traffic blockage. Especially, a coded location designating a traffic-relevant point on the traffic way is used to indicate an approximate position of the traffic obstruction on the traffic way in the traffic message. The terms "coded location" and "traffic-

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relevant point" are defined in the background section of applicants' specification. These are the coded positions of "traffic-relevant points" (page 2, line 14, of applicants' specification), such as expressway exits and road intersections, which are <u>already coded and already present</u> in a database of a central station computer transmitting the traffic message to on-board vehicle navigation systems or vehicles traveling on the travel way. This is apparent from pages 2 and 3 of applicants' specification. A typical central station does not include a database coded with <u>all</u> positions on a road, highway or expressway system. This is explained in the background section of the application. The location of a traffic obstruction does <u>not</u> necessarily occur at these "coded locations" but can indeed occur at any position on the traffic way between or near two coded locations. Nevertheless the driver can have some information regarding the traffic obstruction if the "closest" or "best" nearby "coded location" is communicated to the driver in the traffic message (However more generally any "coded location" can be used as claimed in method claim 9, provide the "section part" — the exact distance to the obstruction from the "coded location" -- is also transmitted in the traffic message).

For the foregoing reasons step a) of the new claim 9 includes coding a coded location of a traffic-relevant point, which in a preferred case is best selected to be near the position of the traffic obstruction (which could be e.g. an accident), in the traffic message. However according to the method of new claim 9 the actual distance or spacing (called the "section part" in the application) between the coded location in the traffic message and the actual or true location

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(e.g. as expressed with GPS coordinates) of the traffic obstruction is also coded into the traffic message. This provides much more accurate information regarding the location of the obstruction to the driver and/or his navigation system than has previously been available with TMC traffic messages. In a particular preferred embodiment the "section part" is coded in label 15 of a TMC traffic message coded in ALERT-C protocol (claim 12). In an especially preferred embodiment the "section part or portion" is given as a percentage of the distance between two coded locations (claim 11).

Of course, the traffic obstruction can be two-dimensional, i.e. it can be a traffic jam with a beginning at one position on the travel way and an ending at another position on the travel way, instead of an accident localized at a particular position. In that case the length of the traffic jam can be encoded into the claimed method (claim 14).

Basis for claim 10 is found in the specification, e.g. page 2, about line 14.

A replacement abstract based on the new main method claim 9 and on dependent claim 12 has been provided above.

IV. Anticipation Rejection based on Myr

Claims 1 to 3 and 7 and 8 were rejected under 35 U.S.C. 102 (e) as anticipated by Myr.

Claims 1 to 8 have been canceled, obviating this anticipation rejection. New main independent method claim 9 includes additional features to further distinguish it from the disclosures in Myr.

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Myr does disclose a method of calculating a route for a vehicle traveling over a road and highway system from GPS data received in the vehicle regarding the vehicle position that accounts for real-time travel times over sections of the road and highway system. Myr discloses a group of travel speed sampling vehicles with position determining systems that travel over the road and highway system broadcasting speed information to a central computer system. The central computer system processes the data transmitted from the data sampling vehicles to obtain real-time information regarding travel times over various road sections as well as statistical data regarding traffic loads and traffic jams at various times during the day (see for example method claim 12 of this reference). The client vehicles receive various parts of this data transmitted from the central station and process it in their individual navigation systems or else receive a calculated route or route portion from the central computer system with an optimized route for travel that e.g. avoids traffic jams or satisfies some criteria, such as minimal travel time.

Thus Myr discloses a sophisticated, complicated and expensive system with heavy processing and high speed requirements for optimizing travel especially for mission-critical situations, for example for guiding military or emergency vehicles to the location of a critical event during a rush hour in a major city.

The aims of applicants' method and system are not so great as the system and method of Myr. In the method of Myr it is not necessary to transmit the exact position of a traffic obstacle because the data sampling vehicles broadcast travel

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times to the central computer, which converts them into statistical data or calculated routes or route sections, which are transmitted to the client vehicles. In fact, Myr does not disclose a method of transmitting the exact position of a traffic obstacle on a travel way or roadway, such as an accident scene or a downed tree, to client vehicles.

The disclosure related to fig. 21 in column 14 describes using an algorithm that uses travel times over road sections determined from statistical data, not position data regarding an obstruction. Furthermore column 14 points out that the enormous number of road sections requires use of a domain-specific algorithm with a hierarchy of road layers. Routes in each road layer are optimized separately, but the optimization is based on statistically calculated travel times over road sections derived from the data sampling done by mobile vehicles, not obstacle or blockage position data.

Applicants' method is simpler and more economical, but does provided additional traffic data regarding obstacles and obstructions e.g. for vehicle-based route calculations of a navigation system by way of radio transmitted traffic messages, preferably TMC traffic messages coded in ALERT-C protocol. With applicants' method data regarding the location of an accident or road blockage at a particular position on a travel way can be transmitted to the moving vehicle and e.g. taken into account by the navigation system or even employed by a driver of a vehicle without a navigation system.

Myr does not disclose transmitting a coded location from a database of a transmitter unit broadcasting digital traffic messages, which designates a traffic-

relevant point, such as an expressway exit or road intersection, which may be near the position of the traffic obstacle and then a "section part" or distance from the coded location to the actual or true position of the traffic obstacle in a TMC traffic message. In that way the TMC traffic message includes the exact or actual position of the traffic obstacle so that the shortest detour, as shown e.g. by applicants' figure 3, can be traveled instead of the longer path involving only coded locations of the traffic message system.

Also it should be noted that the applicants' claimed method is a method of transmitting traffic information regarding traffic obstructions, not a method of calculating a route or a section of a route. Myr discloses methods of calculating a route or section of a route considering real-time travel times.

It is well established that each and every limitation of a claimed invention must be disclosed in a single prior art reference in order to be able to reject the claimed invention under 35 U.S.C. 102 (b) based on the disclosures in the single prior art reference. See M.P.E.P. 2131 and also the opinion in *In re Bond*, 15 U.S.P.Q. 2nd 1566 (Fed. Cir. 1990).

Myr does not disclose digital coding of an actual or true position of a traffic obstacle on a roadway in a traffic message and transmission of the digitally coded message so that vehicles receiving the message can detour in an optimal fashion around the obstacle. Myr does not disclose coding the actual or true position of the traffic obstacle by first including a coded location designating an intersection or exit of the travel way in the traffic message and then coding a "section part" designating the distance from the coded location to the actual or

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true position in the traffic message.

For the foregoing reasons and because of the distinguishing features and limitations in new method claim 9, it is respectfully submitted that none of the new claims 9 to 16 should be rejected under 35 U.S.C. 102 (e) as anticipated by Myr.

V. Obviousness Rejection

Claims 4 to 6 were rejected as obvious under 35 U.S.C. 103 (a) over Myr in view of European Standard ENV 12313-1.

The European Standard ENV 12313-1 describes the conventional ALERT-C protocol used to code TMC traffic messages, which indeed is well known in the art.

However this European Standard does not describe or suggest a method of coding an <u>exact</u> position of a traffic obstacle on a roadway by including a coded location, e.g. of an intersection or exit, to designate the *approximate* location of a traffic obstruction and a coded "section part" or the exact distance to the traffic obstruction in the traffic message.

Thus the secondary reference does not suggest the critical features that are lacking from the primary reference, Myr, that are necessary to arrive at the applicants' claimed method of new claim 9.

There are no hints or suggestions of the modifications of the disclosures in the Myr or European Standard reference that are necessary to arrive at the

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method claimed in claim 9 as required under 35 U.S.C. 103 (a).

It is especially important to remember that the statute (103) requires that the source of the suggestions or hints <u>cannot</u> be the applicants' specification and that the references and the suggestion must have been apparent at the time the invention was made by the inventor, i.e. at least the application date. For example the Federal Circuit Court of Appeals has said:

> "As in all determinations under 35 U.S.C. 103, the decision-maker must bring judgment to bear. It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selected elements from references to fill the gaps". *In re Gorman*, 18 U.S.P.Q.2d 1885 (Fed. Cir. 1991).

Of course the applicants' new dependent claims do claim the preferred embodiment in which the traffic message is a TCM traffic message coded with the known ALERT-C protocol. However the European Standard reference does not suggest or disclose the particular information that is to be coded, i.e. the section part or portion, or the labels in the standard TMC message that are to be used.

For the foregoing reasons and because of the distinguishing features and limitations in new method claim 9, it is respectfully submitted that none of the new claims 9 to 16 should be rejected under 35 U.S.C. 103 (a) as obvious over Myr, and further in view of ENV 12313-1.

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VI. Information Disclosure Statement

The return of a copy of the information disclosure statement filed on June 4, 2003 with considered references initialed in accordance with the usual IDS practice is respectfully requested. The considered references are expected to appear listed on the front page of any U.S. Patent that issues on the present application.
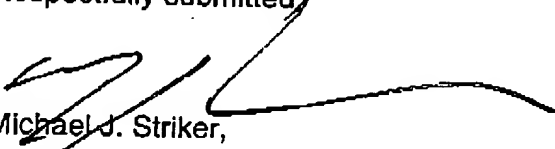
Also the consideration of WO 99/48073 to the extent possible even though a complete English translation has not been provided is respectfully requested. According to 37 C.F.R. 1.98 (a) (3) (ii) translations are not required to be filed unless they are available, which in this case they are not. According to M.P.E.P. Sec. 609 A2 "If no translation is submitted, the Examiner will consider the information in view of the concise explanation and insofar as it is understood on its face, e.g. drawings, chemical formulas ..." See also: M.P.E.P. Sec. 609 A (3) Concise Explanation of Relevance for Non-English Language Information. In view of the above, consideration of the submitted non-English language references is requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawing be further amended or corrected in formal respects to put this case in condition for final allowance, then it is requested that such

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amendments or corrections be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing the case to allowance, he or she is invited to telephone the undersigned at 1-631-549 4700.

In view of the foregoing, favorable allowance is respectfully solicited.

Respectfully submitted,

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